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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,786	09/14/2001	Johannes Wilhelmus Lubbertus Ludolphij	BO 42118 JGD	9785

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EXAMINER

SIMONE, CATHERINE A

ART UNIT PAPER NUMBER

1772

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/857,786	<b>Applicant(s)</b> LUDOLPHIJ, JOHANNES WILHELMUS LUBBERTUS	
	<b>Examiner</b> Catherine Simone	<b>Art Unit</b> 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-11 and 18-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-11 and 18-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All · b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Withdrawn Rejections***

1. The 35 U.S.C. 112 rejection of claims 11 and 24 of record in the previous Office Action mailed 3/30/05, Page 3, Paragraph #4 has been withdrawn due to the Applicant's amendment filed 8/30/05.
2. The 35 U.S.C. 102 rejection of claims 7, 9, 18, 22 and 25 as anticipated by Zahorski of record in the previous Office Action mailed 3/30/05, Pages 3-4, Paragraph #6 has been withdrawn due to the Applicant's amendment filed 8/30/05.
3. The 35 U.S.C. 102 rejection of claims 7, 9-11, 18-20, 22-29, 31 and 32 as anticipated by Gertel of record in the previous Office Action mailed 3/30/05, Pages 4-5, Paragraph #7 has been withdrawn due to the Applicant's amendment filed 8/30/05.
4. The 35 U.S.C. 103 rejection of claim 8 over Zahorski or Gertel of record in the previous Office Action mailed 3/30/05, Page 6, Paragraph #9 has been withdrawn due to the Applicant's amendment filed 8/30/05.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 19-25 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which

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was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recitation “only” in claim 19 is deemed new matter. The specification, as originally filed, does not provide support for the invention as is now claimed.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 19-25 and 27-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "the outer wall" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the inner wall" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitations "the parallel plates" in lines 5 and 7-8, and “the inner wall” line 6, and “the longitudinal length” in line 7. There is insufficient antecedent basis for this limitation in the claim.

The limitation “each stringer having an adjacent-most stringer that extends from an adjacent-most base” in claim 28 is deemed vague and indefinite. The limitation is not clear. What is meant by “adjacent-most”? Clarification is requested.

Claim 32 recites the limitations "the parallel plates" in lines 5 and 7-8, and "the inner wall" line 6, and "the longitudinal length" in line 7. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

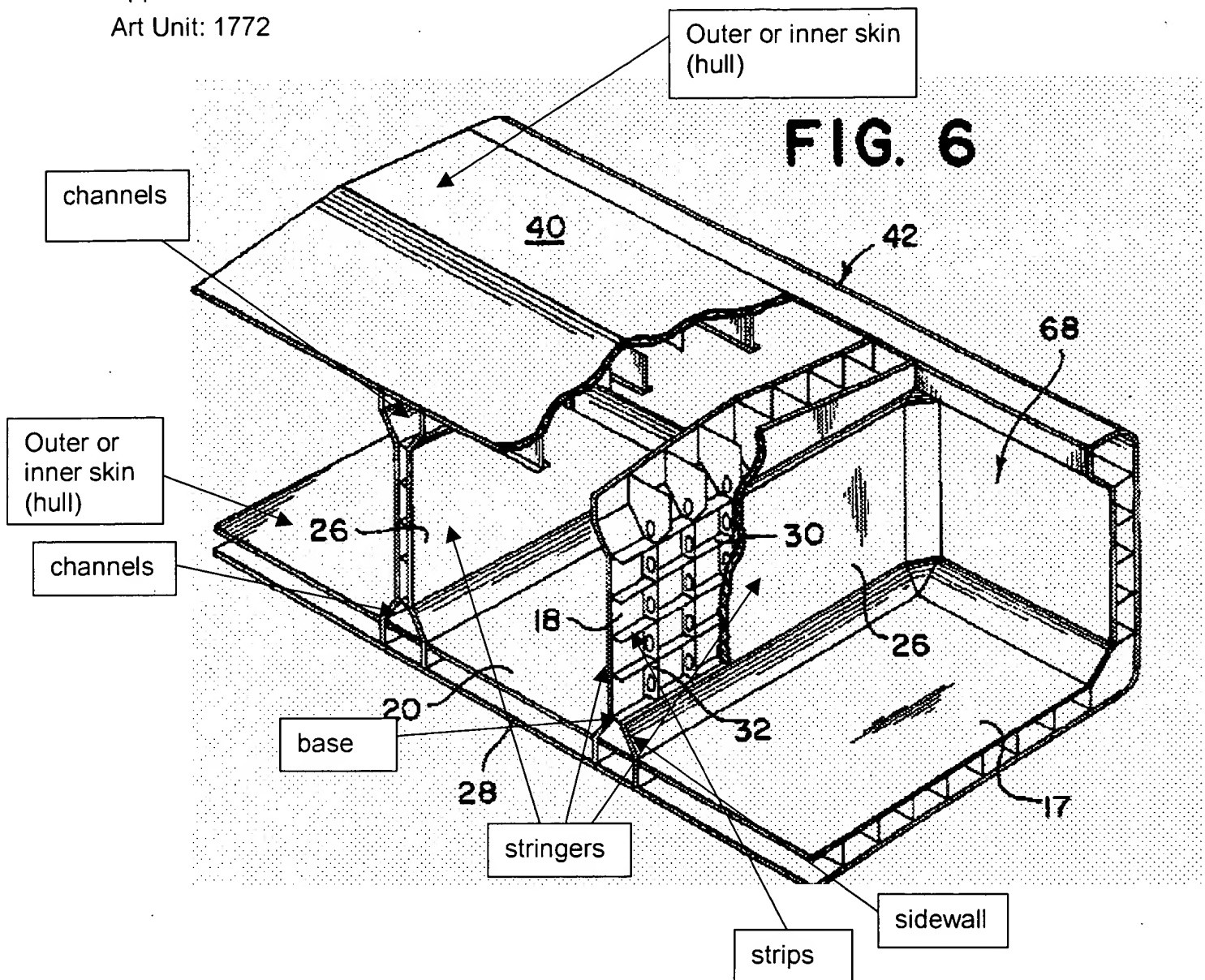
10. Claims 7, 9-11, 18-20, 22-29, 31 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Kennedy (US 5,778,813).

Regarding claims 7, 19, 20, 28 and 29, Kennedy discloses an impact resistant, double-skinned structure comprising a double-skinned wall structure comprised of an outer skin and an inner skin; channels attached to an inner surface of the outer skin, the channels having two side walls and a base joining the two side walls together, the two side walls making an angle of 45 degrees with the outer skin; and stringers parallel to each other and extending perpendicularly only from the bases to an inner surface of the inner skin, the stringers being parallel plates running a longitudinal length of the bases of the channels, the stringers configured to provide a collapse path of the two side walls, from a force applied to the outside side of the outer skin, toward the inner skin (see Fig. 6 shown below). Regarding claim 9, the channels are made of steel 37 (see col. 7, line 66). Regarding claims 10, 23, 26, 27 and 31, note strips joining adjacent stringers; further channels attached to the inner surface of the inner skin, the channels having two

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side walls and a base joining the two side walls together, the two side walls making an angle of 45 degrees with the inner skin, further stringers extending perpendicularly from the bases of the further channels to the inner surface of the outer skin, and strips joining adjacent further stringers (see Figure 6 shown below). Regarding claims 11 and 24, the outer skin is an outer hull of a ship and the inner skin is an inner hull of a ship, and the strips run parallel between the inner and the outer hull (see Figure 6 shown below). Regarding claims 18, 25 and 32, the inner skin and the outer skin form an inner hull and an outer hull structure of a ship's hull, and the parallel plates have a width in a direction from the base to the inner surface of the inner wall and a length along the longitudinal length of the bases, the length of the parallel plates being greater than the width of the parallel plates (see Fig. 6 shown below). Regarding claim 22, the channels are made of steel 37 (see col. 7, line 66), adjacent stringers are jointed, at stringer edges, by strips spaced apart along the length of each base, and the stringers consist essential of parallel plates having a width in a direction from the base to the inner surface of the inner wall and a length along the longitudinal length of the bases, the length of the parallel plates being greater than the width of the parallel plates (see Figure 6 shown below).

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11. Claims 19 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Motsinger (US 3,819,009).

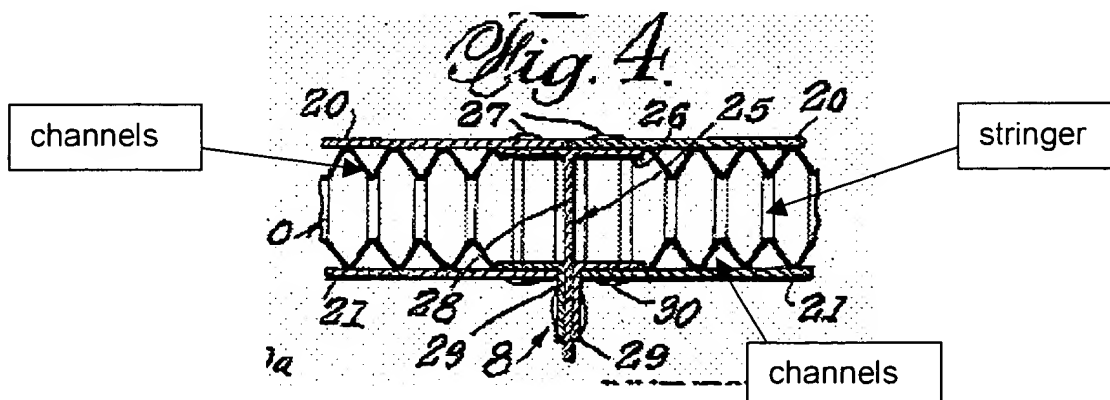
Regarding claims 19 and 28, Motsinger discloses a double-skinned wall structure comprised of an outer skin (Figs. 2 and 3, #26 or #58) and an inner skin (Figs. 2 and 3, #54); channels attached to an inner surface of the outer skin (Figs. 2 and 3, #40), the channels having two side walls (Figs. 2 and 3, #42) and a base joining the two side walls together (Figs. 2 and 3,

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#44), the two side walls making a non-zero angle with the outer skin and stringers (Figs. 2 and 3, #52) parallel to each other and extending perpendicularly only from the bases to an inner surface of the inner skin (Figs. 2 and 3, #54), the stringers being contact free of any side walls, each stringer having an adjacent-most stringer that extends from an adjacent-most base (Figs. 2 and 3, #52), and the side walls are free of any elements extending to the inner surface of the outer wall (Figs. 2 and 3, #42).

12. Claims 19, 20, 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Zahorski (US 3,104,194).

Regarding claims 19, 20, 28 and 29, Zahorski discloses a double-skinned wall structure comprised of an outer skin (Fig. 4, #20) and an inner skin (Fig. 4, #21); channels attached to an inner surface of the outer skin, the channels having two side walls and a base joining the two side walls together, the two side walls making a 45 degrees angle with the outer skin and stringers parallel to each other and extending perpendicularly only from the bases to an inner surface of the inner skin, the stringers being contact free of any side walls, each stringer having an adjacent-most stringer that extends from an adjacent-most base, and the side walls are free of any elements extending to the inner surface of the outer wall (see Fig. 4 shown below).





***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 8, 21 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy (US 5,778,813) or Motsinger (US 3,819,009) or Zahorski (US 3,104,194).

Kennedy, Motsinger and Zahorski each disclose the claimed double-skinned structure as shown above. However, each fails to disclose the channels having a semi-cylindrical cross-section. Normally, it is to be expected that a change in shape of the cross-section of the channels would be an unpatentable modification. Under some circumstances, however, changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. MPEP 2144.04 IV (B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape of the channels in either of Kennedy, Motsinger or Zahorski to have a semi-cylindrical cross-section. One skilled in the art would have been motivated to do so in order to form double-skinned wall structure, since it has been held that the change in form or shape of the channels would be an unpatentable modification in the absence of showing unexpected results.

***Response to Arguments***

15. Applicant's arguments filed 8/30/05 have been fully considered but they are not persuasive. Applicant argues that "the references (Zahorski) do not teach stringers extending perpendicularly only from the bases to an inner surface of the inner skin, wherein the side walls are free of any elements extending to the inner surface of the outer wall". However, as shown in the rejection above, Zahorski clearly teaches stringers extending perpendicularly only from the bases to an inner surface of the inner skin, wherein the side walls are free of any elements extending to the inner surface of the outer wall (see Figure 4 shown above). Applicant further argues that "the references (Zahorski) do not teach stringers parallel to each other and extending perpendicularly from the bases to an inner surface of the inner skin, the stringers being contact free of any side walls, each stringer having an adjacent-most stringer that extends from an adjacent-most base. See that adjacent stringers of the invention are found at adjacent bases of the channels. This is not true of the applied references". However, as shown in the rejection above, Zahorski clearly teaches stringers parallel to each other and extending perpendicularly from the bases to an inner surface of the inner skin, the stringers being contact free of any side walls, each stringer having an adjacent-most stringer that extends from an adjacent-most base (see Figure 4 shown above).

*Conclusion*

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571)272-1501. The examiner can normally be reached on 9:30-6:00.

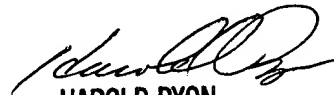
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Catherine A. Simone  
Examiner  
Art Unit 1772  
November 3, 2005



HAROLD PYON  
SUPERVISORY PATENT EXAMINER

1772

11/9/05